

ABSTRACT OF THE DISCLOSURE

An imager includes a two-dimensional array of photosensors, each photosensor having a center point. A non-telecentric lens is positioned over the two-dimensional array of photosensors, and a two-dimensional array of microlenses is positioned over the array of photosensors, and a two-dimensional array of photosensors. Each microlens is associated with a two-dimensional array of photosensors. Each microlens has a center point. A color filter array is positioned over the two-dimensional array of photosensors. The color filter array includes a plurality of color filter areas. Each color filter area is associated with a corresponding photosensor and has a center point. A layer of transmissive apertures is further positioned over the two-dimensional array of photosensors. Each aperture is associated with a corresponding photosensor and having a center point. The microlens is positioned over the corresponding photosensor such that the center point of the microlens is offset from the center point of the corresponding photosensor. The color filter area is positioned over the corresponding photosensor such that the center point of the color filter area is offset from the center point of the corresponding photosensor. Finally, the aperture is positioned over the corresponding photosensor such that the center point of the aperture is offset from the center point of the corresponding photosensor.